
Addressing Asthma: A Comprehensive Approach



One Child's Story...

Jose, age 11, lived in a doublewide trailer provided by his parents' employer, located in the center of grape and hop fields, where he slept on the floor. He had missed 1 1/2 weeks of school over the past 12 months and had been to the emergency department (ED) twice in the past 18 months due to asthma.

Jose's parents had not established a primary care provider for Jose; he was being seen at the local community extended hours clinic for his asthma.

The clinic's asthma program convinced Jose's parents to select a clinic pediatrician to see Jose on a regular basis. It also provided them dust mite covers and a pillow and convinced a local bed manufacturer to provide a free bed.

During the 12 months Jose's family participated in the Yakima Valley Childhood Asthma Project, Jose had no additional visits to the ED, 1 visit to the Extended Hours Clinic and missed only 2 days of school due to asthma.

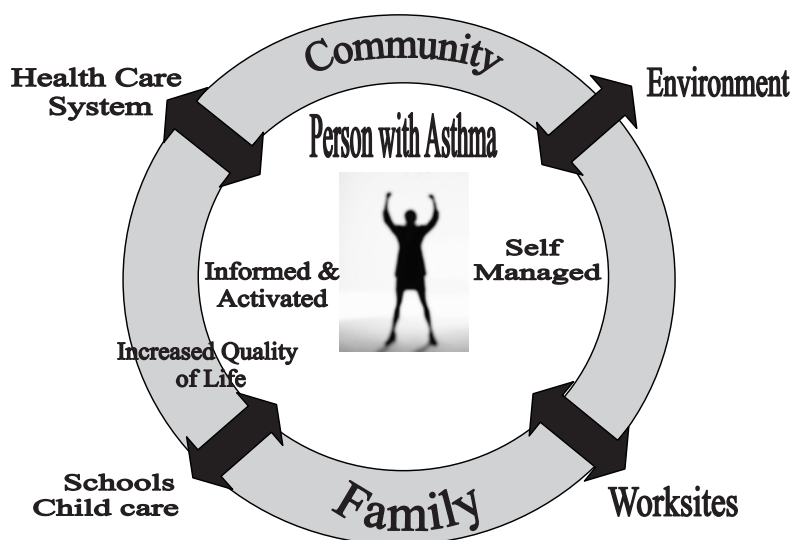
Addressing Asthma: A Comprehensive Approach

Asthma is a complex chronic disease that deeply affects individuals, families, child/adult and health care providers, the community, work sites, and schools. Addressing asthma effectively requires a public health approach that includes long-term coordinated and multifaceted approaches that are concerned with improving the outcomes in all persons with asthma. This is only accomplished through attention to equity and the most efficient use of resources in ways that enhance patient and community quality of life.¹

Appropriate and effective public health approaches to asthma use population-based strategies focused on the community rather than on an individual. Instead of focusing on one element of asthma management (e.g., medical care or environmental issues), the plan finds methods or strategies that will provide maximum benefit for the largest number of persons with asthma. This approach does not abandon the needs of individual patients but broadens the reach of the public health systems and the community to include all persons with asthma, especially those who might be designated as underserved.

Public health's mission helping communities to be safer and healthier is an essential service that is guaranteed by law to all residents of Washington State.² Certain aspects of this asthma plan deal with serving groups with socioeconomic needs, some deal with equitable treatment by third party payers of the private and public sector, and others deal with non-economic issues such as safety and fair treatment in the schools, and availability of recreational resources for children with asthma. This across-the-board applicability of the public health thrust is very important.

Coordinated Approach to Preventing and Managing Asthma³



Studies have shown that individuals need to practice a broad range of health, lifestyle, and self-assessment and treatment behaviors, often with the assistance and support of others to effectively manage their asthma.⁴ Improving the understanding and management of asthma as both a personal and public health issue for persons with asthma and their families, policy makers, and the general public in Washington State requires a coordinated effort involving:

- Health Care System
- Environment
- Educational Settings
- Worksites, and
- Community.

1 Illinois Department of Public Health. (2002.) *Addressing Asthma in Illinois: Illinois Asthma State Plan*. Pg: 18

2 Washington State Department of Health. *Public Health in Washington State*. Retrieved: June 21, 2005. <http://www.doh.wa.gov/PHIP/communications/tools/doc/fsph.doc>

3 Manchester Harris, AE. (2005) Washington State Department of Health.

4 Center for Disease Control and Prevention. *National Asthma Training Curriculum*. CD-ROM 2004

The goal of this coordinated approach is to assist the person with asthma become self-informed, increase self-management with the result of obtaining a better quality of life.

The community plays an important role in supporting persons with asthma through the actions of asthma coalitions, state health departments, and other community sectors concerned about creating environments that are accommodating to those with asthma. It also supports people with asthma by educating the general public, providers, and politicians on the prevalence of asthma; how to diagnose and treat asthma properly; and why legislation is needed to change the political, social, and physical environment.

This chapter focuses on the coordinated community effort to address asthma. In subsequent chapters, coordination with health care systems, schools, environment, worksites, and policy/advocacy will be addressed.

Coalitions

The interest and assistance of all people, not just health care providers or those affected with asthma and their families, is required to address asthma at both the individual and societal levels.³ Coordination by a coalition of committed partners across the asthma spectrum - from health care provider to environmentalist - is an essential element of a public health response.⁵ Taking advantage of the synergy of teams is an effective way to address the problems and challenges of continuous improvement.⁶

On the national level, federal organizations such as the National Institutes of Health, the Centers for Disease Control and Prevention, and the Environmental Protection Agency are working together to address asthma.⁴

In Washington State, the Washington Asthma Initiative (WAI), a coalition of individuals and organizations concerned about asthma prevention, diagnosis, and management is the key convener for the development of the Washington State Asthma Plan. Since its inception in 1997, WAI has been a leader in forming recommendations and coordinating health care providers from varied backgrounds to work toward improving the prevention, diagnosis and management of asthma in Washington State. WAI serves as the statewide link in communicating issues about asthma among the local asthma coalitions and other state partners. WAI will also provide oversight of the Washington State Asthma Plan, once developed. Each year, WAI will meet to review work from the previous year and to develop a work plan based on the State Asthma Plan priorities, additional surveillance, evaluation and needs assessment data.

Washington State also has several local asthma coalitions that work to address the specific needs of their communities. Currently local asthma coalitions are located in Spokane, Yakima, Snohomish, King, Pierce, and Kitsap counties and in Southwest Washington (Clark County area). These coalitions pursue strategies tailored to address unique community characteristics, such as ethnicity or socioeconomic status and have been shown to be more effective than less well coordinated efforts. The most effective community-based programs share a number of common elements. They employ multiple strategies that utilize behavioral changes, a more interactive educational approach, contain skill-building components and are personalized.^{7,8}

Asthma education is the key to recognizing and managing asthma and allergic conditions effectively.⁹ Asthma education can help the general public recognize asthma symptoms and encourage persons with asthma to manage their asthma through medical care follow-up and use of appropriate medications. Community awareness may also reduce feelings of stigma among persons with asthma and help to dispel misconceptions.

In 2000, the US Department of Health and Human Services identified top priorities for investment in asthma, recognizing the importance of education to patients, families and the community. They recommended widening the use of current knowledge to diagnose and



- 5 Center for Disease Control National Center for Environmental Health. *Asthma Speaker's Kit for Health Care Professionals*. Retrieved: April, 2005. <http://www.cdc.gov/asthma/speakit/phresponse.htm>. Slide 50
- 6 Richardson T. (1997). *Total Quality Management*. Albany, N.Y.: Delmar Publishers Pg:54
- 7 Muhlhauser I., Richter B., Kraut D., et al. (1991). Evaluation of a Structured Treatment and Teaching Programme on Asthma. *J Intern Med* 230:157-64
- 8 Taggart VS., Zuckerman SE., Sly RM., et al. (1991). You Can Control Asthma: Evaluation of an Asthma Education Program for Hospitalized Inner-city Children. *Patient Educ Couns* 17: 35-47
- 9 American Lung Association of Washington. (1998). *Washington State Asthma Project*. Pg: 41

Asthma-Friendly

An environment that is supportive of persons with asthma which may include policies that:

- provide for access to asthma medications,
- allow modifications in physical activity programs,
- address environmental triggers such as air quality, molds etc.



manage asthma by educating patients and their families and expanding asthma control activities within community settings.¹⁰

Local asthma coalitions help identify and address needs for prevention and education within communities. One tactic is actively involving community partners/stakeholders in asthma/asthma-related activities (e.g., smoking cessation, agricultural burning). Coalitions also conduct advocacy, fundraising, and program implementation. Some coalitions have been able to secure grant funds to support their activities while others function on membership support only.

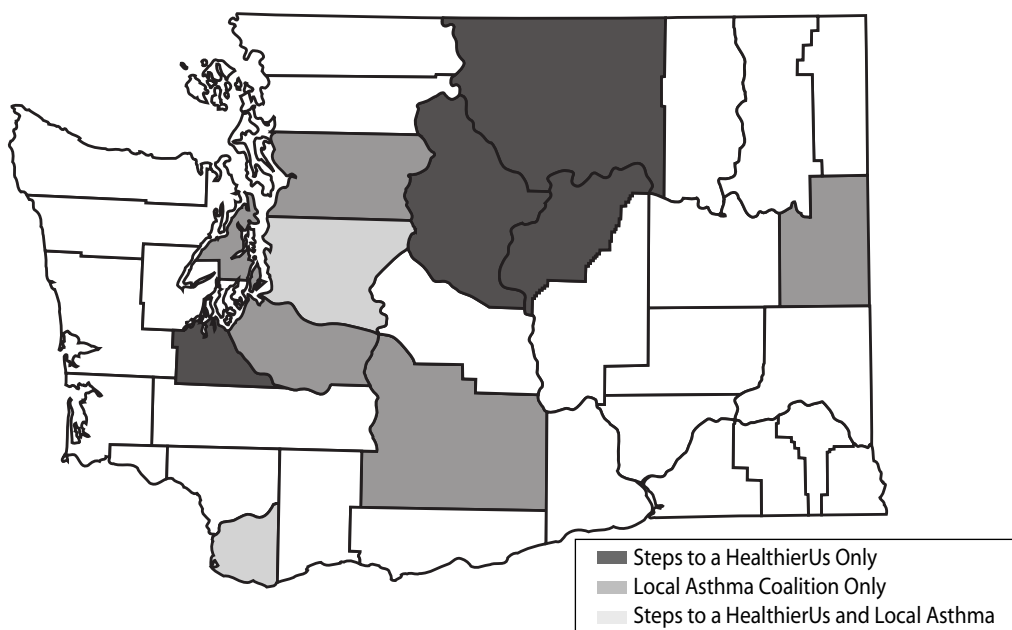
In 2004, Washington State and Public Health Seattle King County both received Steps to a HealthierUS grants from the Centers for Disease Control and Prevention. Steps advocates an integrated approach to the prevention of asthma, diabetes, obesity, and tobacco use and promotes proper nutrition and physical activity. This new approach helps Washington State work as a whole to enhance efforts to reduce chronic disease in communities, schools, worksites and health care settings.

There are four communities funded through the state:

- Chelan, Douglas and Okanogan Counties
- Clark County
- Confederated Tribes of the Colville Reservation
- Thurston County

Local Asthma Coalitions & STEPS to a HealthierUS

The Seattle and King County grant target populations in south Seattle and some suburban areas with large underserved populations. The Steps communities are important partners in Washington in that they can assist in implementation of the state asthma plan in their areas.



Asthma Education

Education promotes partnerships among persons with asthma, their families, clinicians, and the community. Increased asthma awareness not only creates a more asthma-friendly environment for them, but also helps develop and maintain important self-regulation skills that help them manage their asthma. Asthma education among those with asthma, provider(s), and the public is an essential component of the public health system for combating this disease³

¹⁰ US Department of Health and Human Services. (2000). *Action Against Asthma A Strategic Plan for the Department of Health and Human Services*. Pg.34

The results of asthma education activities, as with many health education activities, can be difficult to measure unless there are population-based knowledge surveys being conducted on a periodic basis. In Washington State there is currently no population-based survey mechanism to collect data on knowledge of asthma prevention and management. This does not, however, diminish the importance of providing asthma education.

Child, Youth, and Adult Care Programs

Asthma hospitalization rates for young children (ages 0 to 4) have increased in Washington State.¹¹ In many areas, community programs that serve children, youth, older adults or persons with disabilities do not have asthma-friendly policies in place. They do not have a uniform mechanism that identifies participants with asthma, provides training for their staff or establishes medication access policies. This causes great risk to participants with asthma. Child care and adult long-term facilities have emerged in recent years as an important area for targeting asthma interventions, as well as a source for participants in the statewide asthma partnership.

Asthma Onset in Adults and Older Adults

Asthma is often associated with childhood. However, more than one in ten Washington adults (13.5%) has been told by a health professional at some point during their lifetime that they have asthma. Nationally, 11% of adults reported that they had ever been told they had asthma at any point in their life.¹²

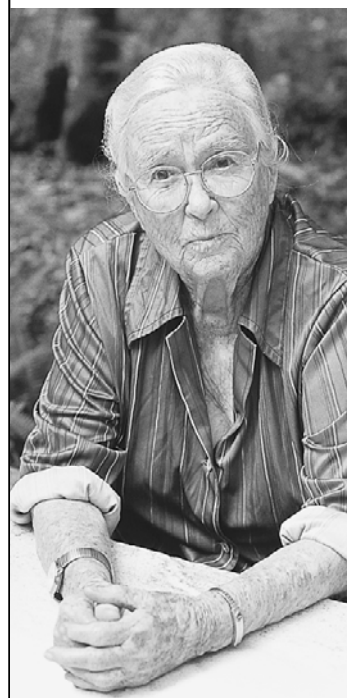
Adult onset can be related to several factors which might include workplace exposures, smoking or second-hand smoke exposure and/or, for women, hormone replacement. The proportion of adult-onset asthma that can be attributed to workplace exposures has been estimated to be between 5% and 25%; occupational exposures vary considerably for different occupations.¹³ Refer to the Work-Related Asthma chapter for further discussion. Adult-onset asthma is more common in women after puberty.¹⁴ It has also been shown that estrogen, when administered to post-menopausal women as hormone replacement therapy, is associated with adult-onset asthma.¹⁵

The normal aging process and other health issues, such as chronic cardiovascular or lung diseases, may make diagnosis of asthma complicated. Asthma can sometimes be misdiagnosed as chronic obstructive pulmonary disease (COPD).¹⁶ People aged 65 and older have comparatively higher hospitalization rates than middle-aged groups.¹⁷ Access to care and cost of medication are also frequent issues for this population.³

Older adults are a target population with specific issues and considerations for asthma interventions. However, asthma programs which specifically address the needs of the older adult population are limited or non-existent in most areas. Unlike school-based asthma programs, there is no central location for programs to access older adults. These factors make education and awareness interventions for the older adult more difficult. Interventions tailored to meet the needs of this population are needed and must be done by partnering with the Department of Social and Health Services Aging and Disability Services Administration, the Area on Agencies on Aging, older adult state homes, elderly community programs and other groups that work with the older adult population.³

Current Activities

One of the few programs that specifically address asthma in the older adult population is *Safe Air for Seattle Seniors*. Funded by the EPA and coordinated by the Comprehensive Health Education Foundation (CHEF), *Safe Air for Seattle Seniors* provides outreach and educational programs for older adults with the goal of reducing health risks related to indoor air quality. The project will demonstrate how a targeted educational campaign that is supported by home



11 Dilley J., Pizacani B., Macdonald S., Bardin J. (2005). *The Burden of Asthma in Washington State*. Olympia, WA: Washington State Department of Health. pg: 49

12 Ibid., pg: 27

13 Ibid., pg: iii

14 Ibid., pg: 35

15 Troisi RJ., Speizer FE., Rosner B., Trichopoulos D., Willett WC. (1995). Cigarette Smoking and Incidence of Chronic Bronchitis and Asthma in Women. *Chest* 08:1557-61.

16 National Institutes of Health, National Heart, Lung and Blood Institute. (1996). *NAEPP Working Group Report: Considerations for Diagnosing and Managing Asthma in the Elderly*. Pg: 5

17 Dilley J., Pizacani B., Macdonald S., Bardin J. (2005). *The Burden of Asthma in Washington State*. Olympia, WA: Washington State Department of Health. pg: 85.



assessments can prevent, reduce, and eliminate indoor air pollution. Training for this program is being supported by the American Lung Association of Washington (ALAW) Master Home Environmentalist (MHE) program.

The Yakima Valley Farm Worker Clinic, through its Childhood Asthma Project, provided asthma training to all child care facilities in a 4-clinic area. This project was funded by the Health Resources & Services Administration-Office Of Rural Health Policy and utilized the American Lung Association of Washington's *Little Lungs Breathing*. Local health jurisdiction child care personnel were trained and then arranged provider trainings. Twenty trainings were provided over a three-year period, reaching 304 child care facilities and 547 individuals in the counties of Walla Walla, Benton, Franklin and Yakima. These classes were also offered in Spanish for the first time.¹⁸

Another child care provider training available in Washington is *Asthma & Allergy Essentials for Child Care Providers*. The Asthma & Allergy Essentials for Child Care Providers training is a one session program developed by a partnership between the Asthma and Allergy Foundation and the EPA to help Head Start, ECEAP, and child care providers recognize symptoms of asthma and allergy. The program improves care of children with asthma and/or severe allergies and increases awareness of the importance of recognizing and mitigating environmental triggers. This class is recognized in Washington State for continuing education credits for providers.

Community health worker models have been implemented in at least three areas in Washington State (Seattle, Tacoma and Yakima). This model utilizes a community outreach worker who works with persons with asthma to provide patient education, training in self-management, the development of a patient-specific asthma action plan, and case management/review. This is coupled with providing in-home environmental assessments to reduce at-home environmental triggers. In King County, a grant from the office of Housing and Urban Development (HUD) also provides supplemental funding to help address poor ventilation, mold-infiltrated surfaces, leaks, holes in walls, carpeting, etc. These models have been found to be effective in decreasing emergency room visits and to better the quality of life for enrollees.¹⁹

For twenty years the American Lung Association of Washington has offered opportunities for children with asthma to attend summer camps where they receive self-management skills for asthma. In 2005, children will have access to these services in five camps for the entire camping season.

Community Based Activities

Goal 1: Improve the understanding and management of asthma as both a personal and public health issue for persons with asthma and their families, policy makers, and the general public in Washington State.

Objective CBA.1

By 2010, increase the understanding of asthma through asthma awareness and education in Washington State

Strategies

- Develop a media campaign to promote asthma awareness, the need for asthma education and the significance of the impact of asthma in targeted communities who have a higher prevalence of asthma
- Develop mechanisms to educate targeted populations on navigating the health care system (both financially and culturally) for optimal asthma care
- Provide support to camps that have staff specifically trained in asthma management and education
- Support evidence and community-based resources/programs that support people with asthma (such as in-home support programs or community-based classes)

18 Ybarra V., Nagle-McNaughton B. (2004). *Yakima Farm Workers Clinic Childhood Asthma Project Final Report*. Yakima, Washington.

19 Krieger JW., Song L., Takaro T. (2005). The Seattle-King County Healthy Homes Project: A Randomized, Controlled Trial of a Community Health Worker Intervention to Decrease Exposure to Indoor Asthma Triggers Among Low-income Children. *American Journal of Public Health*. 95:652-659.

Objective CBA.2

By 2010, implement over 50% of the prioritized objectives of the Washington State Asthma Plan

Strategies

- Conduct an assessment of the need for local asthma coalitions to conduct asthma activities at the local level
- Support the WAI and local asthma coalitions including the identification of additional funding sources, training and technical assistance
- Structure WAI standing committees to address implementation of the state plan
- Continue to support and expand public and private partnerships to address asthma statewide
- Coordinate with Oregon and Idaho asthma programs, as applicable

Objective CBA.3

By 2008, identify community asthma educational needs for community programs serving children (including child care providers), adults and older adults, their paid and unpaid caregivers and underserved populations within Washington State

Strategies

- Partner with state and local programs working with adults and older adults to conduct a needs assessment to identify their specific asthma education and management needs
- Conduct a needs assessment to identify the prevention needs of community programs serving children (e.g., Child care, Head Start) which includes evaluation of existing educational community-based education programs
- Incorporate needs assessment recommendations into future year's work plans
- Identify and coordinate with stakeholders working with the older adult, community programs, and underserved populations
- Develop specific programs that target groups or characteristics identified or associated with asthma in the Burden of Asthma in Washington State report
- Develop materials and/or educational programs based on the highest needs identified through the needs assessment

Objective CBA.4

By 2010, increase the number of community-based programs serving youth (e.g., youth day camps, summer camps, sport leagues) and older adults which report utilizing asthma management plans and have asthma-friendly policies in place

Strategies

- Develop and/or provide asthma education materials for community-based programs serving youth (such as youth sports)
- Develop and disseminate a model asthma management policy for community youth programs to increase access to asthma rescue medications
- Identify community-based programs' asthma prevention/management
- Incorporate asthma education into the required State Training and Registry System (STARS) and other approved training opportunities for child care providers

- Utilize an effective environmental assessment program to conduct assessments of home and center-based child care centers, long term care facilities, and recreational/community-based centers
- Ensure that Head Start and Early Childhood Education and Assistance Programs (ECEAP) have asthma management policies addressing access to asthma rescue medications

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